A Weekly Analysis of Energy Stocks Using the McDep Ratio August 5, 2002

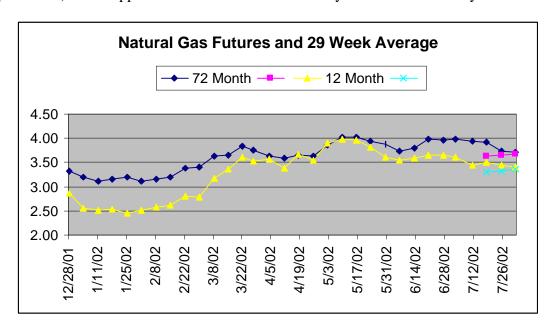
Buy A Gas Stock

Summary and Recommendation

While markets are always uncertain, now seems a reasonable time to make a long-term commitment to natural gas as in our recommended stocks **Encana** (**ECA**), **Burlington Resources** (**BR**), **XTO Energy** (**XTO**) and **San Juan Basin Royalty Trust** (**SJT**). In particular the expected return from natural gas has been increasing this year as we calculate weekly (see *Natural Gas Royalty Trusts*). In contrast the expected return on the safest alternative, Treasury Inflation Protected Securities, has been dropping. Though one must be protected against further downside in the market, the likelihood of reward over the next few years justifies taking some risk here in our opinion. At the same time, momentum is approaching neutral for long-term natural gas and oil price and remains there for year ahead refining margin. Meanwhile, the case for thoughtful investment is strengthened when we further analyze the risks in high greed partnerships in which investors have (mis)placed confidence. Studying the history of Ponzi schemes and pyramids we see remarkable parallels with our negative recommendations. Finally, all current recommendations are ranked in weekly valuation tables (see Tables L-1, L-2, M-1, M-2, S-1 and S-2).

Natural Gas Commodity Price Momentum Near Neutral

A cautious investor might be concerned that momentum is slipping for natural gas as measured by futures prices compared to the 29 week (approximately 200 day) average (see Chart). That appears to be the case for both six-year futures and one-year futures.



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Meanwhile stock prices for most of our recommendations have already lost positive momentum. We made some revisions to neutral as momentum was changing, but had little time to act on others and are left with our fundamental conviction. We are comfortable with that because we see favorable valuation upside for our low McDep Ratio recommendations. We also see relatively better downside protection with ratios of Debt/Present Value ranging from moderate to none.

Next we launch into stocks with the opposite prospects. The apparent shakiness of the stocks for which we recommend Strong Sell reinforces our confidence in the strength of the stocks for which we recommend Buy.

How Ponzi Schemes and Pyramid Frauds Work

That subheading is part of the subtitle of a book by James Walsh published in 1998 with the main title "You Can't Cheat an Honest Man". Considering our concerns about high greed partnerships, Mr. Walsh's book is a page-turner. Here are some observations we draw from the fascinating work.

- 1. The Ponzi Perp is a Persuasive Person, often heralded as a genius or a hero. (Perp apparently is law enforcement jargon for perpetrator.)
- 2. Participants often include sophisticated persons and those trusted with authority.
 - a. New Era Philanthropy, a \$350 million fraud perpetrated by John C. Bennett from 1989 to 1995 ensnared Ivy League intellectual leaders Harvard University, Princeton University, and the University of Pennsylvania as well as former Secretary of the Treasury William E. Simon.
 - b. An Irish Castles scheme in 1985 to 1988 fooled Anthony J. O'Reilly, former CEO of Heinz, and Prescott Bush, uncle of the current president.
 - c. Home-Stake Production, operating from 1964 to 1972, counted among its investors, entertainers Bob Dylan, Liza Minnelli, Barbra Streisand and the entire board of directors of a large, well-known company headquartered in Fairfield, Connecticut.
 - d. A 1996 Ponzi scam ensnared the members of the Las Vegas Police Department.
 - e. Citizens from all walks of life participated in a Ponzi scheme that nearly bankrupted the whole country of Albania.
 - f. The billion-dollar Caritas fraud had wide participation and was only one of several rampant in Romania in 1994.
- 3. Early winners recruit successor suckers with their tales of investment scores.
- 4. Investors are promised high income and the Ponzi Perp takes excessive compensation. Robert Trippet, a predecessor of today's high greed general partners, gave himself 50% of any energy investment by Home-Stake.
- 5. When momentum slows, failure can be rapid.

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6. Participants initially resist negative characterization of the perp. Law enforcement officials tend to view the schemes as "victimless" crimes. After the collapse, many losers are too embarrassed to press claims.

Parallels to Ponzi Schemes and Pyramid Frauds

First, let us clarify the use of the term pyramid. We have cited Insull debt pyramids as reason enough to sell the highly leveraged partnerships. Walsh uses the term to describe a different fraud that is a common variation of the Ponzi scheme. In a pyramid scheme, initial investors recruit second level investors to pay a fee to initial investors. Then second level investors recruit third level investors who would in turn pay a fee to second level investors and to first level investors. And so on. The mechanics, but not necessarily the ultimate dangers, of pyramid schemes are widely communicated.

The most telling parallel to high greed partnerships is the compensation to the general partner that we update for latest declarations (see Table). The top three potential "Ponzi Perps" now extract 40%, 29% and 26% from distributions of income and principal. The compensation scheme looks like the levels of a pyramid. Initial investors pay the general partner 2%. Then after the general partner declares a distribution above the 15% pyramid level, initial investors get a gain in their principal if the stock goes up and new investors buy in at the higher price. All investors pay the general partner an incremental 15% of income and principal distributed. The process is repeated for the 25% level and then finally for the 50% level. The further the highest greed general partners move into the 50% level, the higher the cumulative take. Thus, high greed partnerships can be readily compared to Observation 4 in our discussion of Ponzi Schemes and Pyramid Frauds.

All of the other Observations also seem to apply. Observation 1 needs no elaboration. Observation 2 can be readily demonstrated by the public lists of holders of high greed partnerships and the directors of the general partners. Observation 3 is reflected in press quotes and Internet chat comments. Observation 5 has not yet unfolded to the degree we expect. Observation 6 may partly explain lax regulation particularly when we consider that the primary regulator, the Securities and Exchange Commission, has also been starved for funds.

Mr. Walsh concludes his Acknowledgments with "By arming potential targets with information, I hope we can make some progress toward pushing the perps out of business." We thank him for his insight.

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High Greed Partnerships

	2		Current Distrib. Average		Greed	Potential	
	15%	25%	50%	(\$/unit)	GP Share	Gauge	"Ponzi Perp"
Kinder Morgan (KMP,KMR)	0.15	0.18	0.23	0.61	40%	2.61	Kinder Morgan (KMI)
El Paso Energy Partners (EPN)	0.33	0.38	0.43	0.68	29%	1.59	El Paso (EP)
TEPPCO Partners, L.P. (TPP)	0.28	0.33	0.45	0.60	26%	1.33	Duke(DUK)/Phillips (P)
Enbridge Energy Partners (EEP)	0.59	0.70	0.99	0.90	10%	0.91	Enbridge Inc. (ENB)
Northern Border Partners (NBP)	0.61	0.72	0.94	0.80	7%	0.86	Enron, Williams (WMB)
Enterprise Products Part. (EPD)	0.25	0.31	0.39	0.34	7%	0.85	RD/Shell (RD) (20%)
Plains All Amer. Pipeline (PAA)	0.45	0.50	0.68	0.54	6%	0.80	Plains Resources (PLX)
Williams Energy Partners (WEG)	0.58	0.66	0.79	0.68	5%	0.86	Williams (WMB)
Valero LP (VLI)	0.60	0.66	0.90	0.70	4%	0.78	Valero Energy (VLO)
Penn Virginia Res. Part, L.P.(PVR)	0.55	0.65	0.75	0.50	2%	0.67	Penn Virginia (PVA)
Pacific Energy Partners (PPX)	0.51	0.59	0.70	0.46	2%	0.66	Anschutz
AmeriGas Partners, L.P. (APU)	0.61	0.70	0.90	0.55	2%	0.61	UGI Corporation (UGI)

Financial Markets Reject the KMR Peso

Strong Sell recommended **Kinder Morgan** raised about \$300 million in new shares of Kinder Morgan Management (KMR). That is about a half year late and about 70% shy of expectations at the time of the last large acquisition.

We can now call KMR stock the "KMR Peso" following the elimination of the exchange feature that linked the price of KMR to Kinder Morgan Energy Partners (KMP). We see a similarity to when Argentina eliminated convertibility of its peso to the U.S. dollar earlier this year.

The Kinder Morgan entities have high McDep Ratios and high ratios of Debt to Present Value. In simpler terms, the stocks have high valuation risk and high risk of financial failure. For example, investment values for energy infrastructure properties may be down by as much as a third in the current distressed market. At a ratio of Debt to Present Value of 0.87, KMI can withstand a reduction of only 0.13 in value before the stock is worthless. At a ratio of Debt to Present Value of 0.49, KMP and KMR would see the net present value of units and shares fall by some two thirds to low single digits. In other words, Kinder Morgan stock prices seem to be lagging well behind the decline in value that has taken place in its industry. Thus, further stock price decline seems likely for Kinder Morgan.

Kinder Morgan was in violation of its debt covenants earlier this year. Lenders apparently were willing to give the entities more time to raise equity. We can't say whether the lenders will allow Kinder to continue its high-risk ways, but there is no doubt

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that its bargaining position is weak. We see more negative implications than positive implications in the experience of the latest underwriting.

In the context of our discussion of the Walsh book, institutions, the targeted buyers of KMR, may see that Kinder Morgan has reached the top level of the pyramid. It is quite expensive for new investors in KMR/KMP to give up economic value not only to the GP, but also to the participants who got in the pyramid earlier.

Debt Zooming for El Paso Energy Partners

The news is no better for Strong Sell EPN. True, year over year quarterly growth is strong. But it is practically all in the transfer of assets from its parent, the beleaguered **El Paso Corporation**.

Our valuation numbers for EPN have deteriorated after taking account of second quarter results. The impact of the April acquisition was much as expected, but we reclassified preferred units as debt rather than equity. As a result EPN's ratio of Debt to Present Value increases to 0.64. Again Present Value may be only two thirds of what we estimate. Such a reduction for EPN would wipe out most of the equity value. Thus, one might ask if the limited partners of EPN have much more than a worthless piece of paper in a debt-soaked industry segment beset by scandal and self-dealing.

El Paso would transfer another infrastructure asset to EPN to run up debt even further. Now this might be all right if the partnership could raise a billion dollars of equity at the current price. That seems far-fetched in view of the recent experience of Kinder Morgan. EPN, too, has reached the top level of the pyramid. New investors would be transferring a high proportion of economic value not only to the GP, but also to earlier investors in the pyramid.

Expense the General Partner Greed Option

We have likened accounting for high greed partnerships to not counting the dilution from convertible securities as companies once routinely hid. At the same time we sense the "tipping point" has been reached on the expensing of stock options. Corporate officers with integrity may have a hard time certifying past financial statements as honest without changing the treatment of options, at least for the future. Such certifications are required from the 1000 largest companies by August 14. That gives us an idea. Why not expense the general partner greed option?

The next question is what is the option worth? On a conservative basis we would say it is worth the share of book value of equity that corresponds to the general partner's current share of income and principal distributions. Where the general partner has a higher share

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of reported income, we would use that fraction in the calculation. That would go a long way to lessening the deception of high greed partnership accounting.

We don't know of any corporation that granted stock options to executives potentially as dilutive as the general partner greed option. Of course, expensing the general partner greed option could lead to curtailing the incitement of general partner greed. That would not be all bad. In fact there might be a surprising capital market advantage to a partnership seeking to raise new money on better terms for investors.

Kurt H. Wulff, CFA

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Table L-1
Mega Cap and Large Cap Energy Companies
Rank by McDep Ratio: Market Cap and Debt to Present Value

			Price (\$/sh)		Market	Net Present	Debt/	
	Symbol/		1-Aug	Shares	Cap	Value	Present	McDep
M. C	Rati	ing	2002	(mm)	(\$mm)	(\$/sh)	Value	Ratio
Mega Cap	7707.6		22.65	< 0.50	221 000	26.00	0.00	0.04
Exxon Mobil Corporation	XOM		33.65	6,858	231,000	36.00	0.09	0.94
BP plc	BP		43.95	3,734	164,000	50.00	0.15	0.90
TotalFinaElf S.A.	TOT	_	67.55	1,352	91,300	90.00	0.14	0.78
Royal Dutch/Shell	RD	2	42.21	3,502	148,000	60.00	0.12	0.74
ChevronTexaco Corporation	CVX	2	70.55	1,062	74,900	110.00	0.16	0.70
Total or Median					709,000		0.14	0.78
Energy Infrastructure	~ ~			=0.4	40.000	•••	o .=	4.00
Southern Company	SO		27.55	701	19,300	23.90	0.47	1.08
Duke Energy Corporation	DUK		25.44	792	20,100	30.40	0.48	0.91
American Electric Power Co. Inc.	AEP	3	32.41	322	10,400	42.20	0.63	0.91
Dominion Resources	D		58.37	269	15,700	76.20	0.45	0.87
El Paso Corporation	EP		15.25	546	8,300	27.30	0.61	0.83
Enel S.p.a. (32%)	EN		23.20	388	9,000	32.70	0.39	0.82
Exelon Corporation	EXC	3	48.00	323	15,500	70.80	0.45	0.82
Total or Median					79,000		0.47	0.85
Natural Gas and Oil								
Occidental Petroleum Corp.	OXY		25.75	372	9,600	30.00	0.48	0.93
ENI S.p.A.	E		73.00	776	56,600	85.00	0.18	0.88
Devon Energy	DVN		40.61	165	6,700	55.00	0.48	0.86
Encana Corporation	ECA	2	28.05	484	13,600	35.00	0.25	0.85
OAO Lukoil	LUKOY		56.00	299	16,800	70.00	0.08	0.82
Anadarko Petroleum Corp.	APC		41.90	266	11,100	56.00	0.26	0.81
Unocal Corporation	UCL		30.80	245	7,500	45.00	0.33	0.78
ConocoPhillips	P	2	49.21	680	33,500	80.00	0.32	0.74
Burlington Resources	BR	1	35.01	202	7,100	57.00	0.28	0.73
Marathon Oil Corporation	MRO	1	22.80	310	7,100	40.00	0.36	0.73
Total or Median					160,000		0.28	0.81
Service								
Baker Hughes Inc.	BHI		25.62	338	8,700	24.50	0.13	1.04
Schlumberger Ltd.	SLB		39.66	581	23,000	44.00	0.12	0.91
Halliburton Company	HAL		12.56	430	5,400	25.00	0.14	0.57

Buy/Sell rating after symbol: 1-Strong Buy, 2-Buy, 3-Neutral, 4-Sell, 5-Strong Sell McDep Ratio = **M**arket **c**ap and **De**bt to **p**resent value of oil and gas and other businesses

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Table L-2
Mega Cap and Large Cap Energy Companies
Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.

			Price	F17/	F17/	Dividend or Distribution		PV/
	C11/		(\$/sh)	EV/	EV/		stribution NTM	
	Symbol/		1-Aug 2002	Sales NTM	Ebitda NTM	P/E NTM		Ebitda NTM
Mega Cap	K	ating	2002	IN I IVI	IN 1 IVI	IN I IVI	(%)	IN I IVI
Exxon Mobil Corporation	XOM		33.65	1.4	9.5	20	2.7	10.1
BP plc	BP		43.95	1.4	8.2	20 17	3.1	9.2
TotalFinaElf S.A.	TOT		67.55	1.2	7.4	15	2.8	9.4
ChevronTexaco Corporation	CVX	2	70.55	1.1	6.5	12	4.0	9.2
Royal Dutch/Shell	RD	2	42.21	1.1	5.8	11	4.0	7.9
Media		2	72.21	1.1	7.4	15	3.1	9.2
Energy Infrastructure	iri			1.2	7.4	13	3.1	7.2
Southern Company	SO		27.55	3.4	9.7	16	4.9	9.0
Duke Energy Corporation	DUK		25.44	0.8	8.2	10	4.3	9.0
American Electric Power Co. Inc.	AEP	3	32.41	0.5	8.2	9	7.4	9.0
Dominion Resources	D	5	58.37	3.3	7.8	12	4.4	9.0
El Paso Corporation	EP		15.25	0.6	7.4	8	5.9	9.0
Enel S.p.a. (32%)	EN		23.20	2.0	7.4	28	7.0	9.0
Exelon Corporation	EXC	3	48.00	2.2	7.4	11	3.7	9.0
Media	ın			2.0	7.8	11	4.9	9.0
Natural Gas and Oil								
Occidental Petroleum Corp.	OXY		25.75	1.4	7.5	12	3.9	8.1
ConocoPhillips	P	2	49.21	0.8	6.9	14	2.9	9.3
Anadarko Petroleum Corp.	APC		41.90	2.6	6.5	13	0.7	8.1
ENI S.p.A.	E		73.00	1.6	6.4	14	4.6	7.3
Devon Energy	DVN		40.61	2.9	6.4	41	0.5	7.4
Burlington Resources	BR	1	35.01	4.4	5.8	14	1.6	8.0
Encana Corporation	ECA	2	28.05	3.6	5.6	11	0.9	6.5
Marathon Oil Corporation	MRO	1	22.80	0.4	5.3	10	4.0	7.3
Unocal Corporation	UCL		30.80	2.2	4.8	11	2.6	6.2
OAO Lukoil	LUKOY		56.00	1.5	4.0	8	1.9	4.9
Media	ın			1.9	6.1	13	2.3	7.3
Service								
Baker Hughes Inc.	BHI		25.62	1.7	8.3	18	1.8	9.0
Schlumberger Ltd.	SLB		39.66	2.1	7.3	20	1.9	9.0
Halliburton Company	HAL		12.56	0.5	4.7	10	4.0	8.2

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended June 30, 2003; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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Table M-1
Mid Cap Energy Companies
Rank by McDep Ratio: Market Cap and Debt to Present Value

			Price			Net		
			(\$/sh)		Market	Present	Debt/	
	Symbol/		1-Aug	Shares	Cap	Value	Present	McDep
	Ra	ating	2002	(mm)	(\$mm)	(\$/sh)	Value	Ratio
Energy Infrastructure								
Enterprise Products Part.	EPD		20.13	175	3,500	9.50	0.43	1.64
Kinder Morgan Energy Partners, L.P.	KMP	5	29.24	136	4,000	14.00	0.49	1.56
Kinder Morgan, Inc.	KMI	5	41.24	123	5,100	8.10	0.87	1.53
Kinder Morgan Management, LLC	KMR	5	27.65	30	800	14.00	0.49	1.50
Dynegy Inc.	DYN		2.75	419	1,200	1.00	0.94	1.10
Calpine Corporation	CPN	3	4.20	375	1,600	1.00	0.97	1.09
Williams Companies	WMB		3.80	521	2,000	1.00	0.97	1.08
AES Corporation	AES		2.12	543	1,200	1.00	0.98	1.03
Valero Energy Corporation	VLO		32.61	104	3,400	60.00	0.46	0.75
Sempra Energy	SRE		21.14	203	4,300	41.70	0.50	0.75
Mirant Corporation	MIR		3.67	353	1,300	18.60	0.65	0.72
Consol Energy Inc.	CNX		13.51	79	1,100	35.90	0.51	0.69
CMS Energy Corporation	CMS		7.97	128	1,000	43.80	0.62	0.69
Constellation Energy Group	CEG		26.91	152	4,100	56.50	0.35	0.66
Total or Mediar	ı				29,500		0.58	1.08
Natural Gas and Oil								
Suncor Energy	SU		16.39	454	7,400	17.00	0.25	0.97
Ocean Energy, Inc.	OEI		19.07	178	3,400	20.00	0.30	0.97
Murphy Oil Corporation	MUR		78.41	46	3,600	82.00	0.18	0.97
Imperial Oil Limited (30%)	IMO		26.40	114	3,000	30.00	0.14	0.90
Petro-Canada	PCZ		27.28	262	7,200	31.00	0.11	0.89
Norsk Hydro ASA (49%)	NHY		41.23	126	5,200	54.00	0.18	0.81
XTO Energy Inc.	XTO	2	18.12	124	2,300	26.00	0.23	0.77
PetroChina Company Ltd (10%)	PTR	2	20.50	176	3,600	30.00	0.17	0.74
Total or Mediar	ı				29,800		0.18	0.93

Buy/Sell rating after symbol: 1 - Strong Buy, 2 - Buy, 3 - Neutral, 5 - Strong Sell McDep Ratio = Market cap and **De**bt to **p**resent value of oil and gas and other businesses

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Table M-2
Mid Cap Energy Companies
Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.

			Price	Price Dividend or				
			(\$/sh)	EV/	EV/	Di	stribution	PV/
	Symbol/	•	1-Aug	Sales	Ebitda	P/E	NTM	Ebitda
	K	<i>Pating</i>	2002	NTM	NTM	NTM	(%)	NTM
Energy Infrastructure								
Enterprise Products Part.	EPD		20.13	1.8	18.0	44	6.2	11.0
Kinder Morgan Energy Partners, L.P.	KMP	5	29.24	3.0	14.0	15	8.3	9.0
Kinder Morgan, Inc.	KMI	5	41.24	3.6	13.8	17	0.5	9.0
Kinder Morgan, Inc. Kinder Morgan Management, LLC	KMR	5	27.65	2.9	13.5	15	8.8	9.0
Calpine Corporation	CPN	3	4.20	1.9	11.2	13	0.0	10.2
Dynegy Inc.	DYN	3	2.75	0.2	9.9			9.0
Williams Companies	WMB		3.80	2.0	9.9 9.7		-	9.0
AES Corporation	AES		2.12	2.7	9.2		_	9.0
Sempra Energy	SRE		21.14	1.1	6.8	8	4.7	9.0
Mirant Corporation	MIR		3.67	0.4	6.5	2		9.0
Consol Energy Inc.	CNX		13.51	1.7	6.2	5	8.3	9.0
CMS Energy Corporation	CMS		7.97	0.7	6.2	4	18.3	9.0
25 1	CMS		26.91	1.7	5.9		1.8	9.0
Constellation Energy Group	VLO			0.2	5.9 5.1	8 6	1.8	9.0 6.8
Valero Energy Corporation			32.61			8		
Median	ı			1.7	9.5	8	3.3	9.0
Natural Gas and Oil	CII		16.20	2.5	10.5	22	1.2	10.0
Suncor Energy	SU		16.39	3.5	10.5	23	1.3	10.8
Imperial Oil Limited (30%)	IMO		26.40	1.3	9.2	21	2.0	10.3
Murphy Oil Corporation	MUR		78.41	0.9	7.7	37	1.9	8.0
Ocean Energy, Inc.	OEI		19.07	4.5	7.6	32	0.8	7.8
Petro-Canada	PCZ	2	27.28	1.7	6.6	17	0.9	7.4
XTO Energy Inc.	XTO	2	18.12	3.3	6.4	12	0.2	8.3
Norsk Hydro ASA (49%)	NHY		41.23	0.7	3.8	11	2.5	4.8
PetroChina Company Ltd (10%)	PTR	2	20.50	1.6	3.7	7	6.2	5.1
Mediar	ı			2.5	7.6	22	1.1	8.2

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended June 30, 2003; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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Table S-1
Small Cap Energy Companies
Rank by McDep Ratio: Market Cap and Debt to Present Value

	Symbol/ Rai	ting	Price (\$/sh) 1-Aug 2002	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio
Energy Infrastucture								
El Paso Energy Partners	EPN	5	32.92	42.8	1,410	10.20	0.64	1.81
Enbridge Energy Partners,	EEP	3	42.05	31.0	1,300	16.60	0.58	1.64
TEPPCO Partners, L.P.	TPP		29.70	46.5	1,380	12.90	0.61	1.51
Plains All Amer. Pipeline	PAA		24.83	41.6	1,030	14.90	0.39	1.41
Northern Border Partners	NBP		35.36	42.0	1,490	20.10	0.57	1.33
Penn Virginia Res. Part, L.P.(48%)	PVR		18.99	7.7	150	17.90	0.12	1.05
AmeriGas Partners, L.P.	APU		22.80	49.0	1,120	23.50	0.47	0.99
Penn Virginia Corporation	PVA		34.00	9.0	310	35.00	0.10	0.97
Total or Media			2	,.0	8,200	22.00	0.52	1.37
Natural Gas and Oil	•				0,200		0.02	1.07
Provident Energy Trust	PVX		7.06	36.0	250	5.00	0.46	1.22
Dorchester Hugoton, Ltd.	DHULZ		12.21	10.7	131	11.60	(0.17)	1.06
Quicksilver Resources Inc.	KWK		20.50	19.4	400	19.00	0.44	1.04
Newfield Exploration Company	NFX		30.58	48.6	1,490	33.00	0.25	0.95
Pogo Producing Company	PPP		28.90	60.5	1,750	32.00	0.27	0.93
Enerplus Resources Fund	ERF		17.20	69.6	1,200	20.00	0.19	0.89
CNOOC Limited (19%)	CEO	2	25.96	78.0	2,030	30.00	-	0.87
Stone Energy Company	SGY		33.16	26.4	880	42.00	0.29	0.85
Encore Acquisition Corp. (25%)	EAC		15.95	7.5	120	20.00	0.18	0.84
Southwestern Energy Company	SWN		10.89	25.6	280	17.00	0.44	0.80
Spinnaker Exploration Company	SKE		26.55	28.5	760	35.00	0.03	0.77
Unit Corporation	UNT		15.70	36.2	570	21.00	0.03	0.76
Forest Oil Corporation	FST	3	21.87	46.8	1,020	35.00	0.30	0.74
Swift Energy Company	SFY		12.73	24.8	320	22.00	0.32	0.71
Magnum Hunter Resources, Inc.	MHR		5.15	71.5	370	11.00	0.46	0.71
Canadian Oil Sands Trust (US\$)	COS_u.TO	2	24.34	56.9	1,380	40.00	0.12	0.65
Total or Median	ı				13,000		0.26	0.84
Natural Gas Royalty Trusts								
Cross Timbers Royalty Trust	CRT		15.19	6.0	91	19.60	-	0.77
San Juan Basin Royalty Trust	SJT	2	10.28	46.6	480	15.10	-	0.68
Hugoton RoyaltyTrust (46%)	HGT		10.10	18.4	190	15.00	-	0.67
Micro Cap								
Abraxas Petroleum Corporation	ABP		0.52	27.0	14	2.00	0.84	0.88
Energy Partners Ltd.(30%)	EPL	2	7.24	8.2	60	10.00	0.38	0.83
Purcell Energy, Ltd. (US\$)	PEL.TO	3	1.48	27.3	40	3.00	0.19	0.58

Buy/Sell rating after symbol: 1 - Strong Buy, 2 - Buy, 3 - Neutral, 4 - Sell, 5 - Strong Sell McDep Ratio = \mathbf{M} arket \mathbf{c} ap and \mathbf{D} ebt to \mathbf{p} resent value of oil and gas and other businesses

A Weekly Analysis of Energy Stocks Using the McDep Ratio August 5, 2002

Table S-2
Small Cap Energy Companies
Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.

			Price (\$/sh)	EV/	EV/		vidend or stribution	PV/
	Symbol/		1-Aug	Sales	Ebitda	P/E	NTM	Ebitda
	Rai	ting	2002	NTM	NTM	NTM	(%)	NTM
Energy Infrastucture								
El Paso Energy Partners	EPN	5	32.92	9.2	16.3	25	8.2	9.0
Enbridge Energy Partners,	EEP		42.05	6.6	14.8	81	8.3	9.0
TEPPCO Partners, L.P.	TPP		29.70	1.1	13.6	19	7.7	9.0
Plains All Amer. Pipeline	PAA		24.83	0.2	12.7	18	8.3	9.0
Northern Border Partners	NBP		35.36	7.5	12.0	16	9.0	9.0
Penn Virginia Res. Part, L.P.(48%)	PVR		18.99	7.1	9.5	10	10.5	9.0
AmeriGas Partners, L.P.	APU		22.80	1.5	8.9	13	9.6	9.0
Penn Virginia Corporation	PVA		34.00	3.1	4.7	12	2.6	4.8
Media	an			4.8	12.3	17	8.3	9.0
Natural Gas and Oil								
Dorchester Hugoton, Ltd.	DHULZ		12.21	5.9	9.0	13	9.5	8.5
Quicksilver Resources Inc.	KWK		20.50	4.7	8.7	22	-	8.3
Provident Energy Trust	PVX		7.06	3.7	7.4	92	15.7	6.1
Pogo Producing Company	PPP		28.90	4.0	6.8	41	0.4	7.3
Canadian Oil Sands Trust (US\$)	COS_u.TO	2	24.34	3.6	6.7	8	5.3	10.3
Enerplus Resources Fund	ERF		17.20	4.6	6.5	16	12.7	7.4
Encore Acquisition Corp. (25%)	EAC		15.95	4.1	6.2	13	-	7.4
Magnum Hunter Resources, Inc.	MHR		5.15	2.9	5.9	15	-	8.3
Swift Energy Company	SFY		12.73	3.9	5.8	26	-	8.1
Forest Oil Corporation	FST	3	21.87	3.4	5.8	18	-	7.8
CNOOC Limited (19%)	CEO	2	25.96	4.3	5.7	11	0.9	6.5
Southwestern Energy Company	SWN		10.89	2.1	5.0	11	-	6.3
Unit Corporation	UNT		15.70	2.7	5.0	11	-	6.6
Newfield Exploration Company	NFX		30.58	3.2	4.4	17	-	4.7
Stone Energy Company	SGY		33.16	3.3	4.3	10	-	5.0
Spinnaker Exploration Company	SKE		26.55	3.2	3.7	11	-	4.8
Media	an			3.7	5.8	14	-	7.3
Natural Gas Royalty Trusts								
Cross Timbers Royalty Trust	CRT		15.19	5.8	8.4	9	10.9	10.9
San Juan Basin Royalty Trust	SJT	2	10.28	5.5	7.1	10	10.2	10.4
Hugoton RoyaltyTrust (46%)	HGT		10.10	4.7	7.1	11	9.5	10.5
Micro Cap								
Abraxas Petroleum Corporation	ABP		0.52	4.2	6.1		_	6.9
Energy Partners Ltd.(30%)	EPL	2	7.24	2.5	5.0		_	6.0
Purcell Energy, Ltd. (US\$)	PEL.TO	3	1.48	2.8	3.8	8	-	6.4

 $EV = Enterprise\ Value = Market\ Cap\ and\ Debt;\ Ebitda = Earnings\ before\ interest,\ tax,\ depreciation\ and\ amortization;\ NTM = Next\ Twelve\ Months\ Ended\ June\ 30,\ 2003;\ P/E = Stock\ Price\ to\ Earnings;\ PV = Present\ Value\ of\ oil\ and\ gas\ and\ other\ businesses$